

## The Sphecid Wasp, *Podalonia*\* *violaceipennis* (Lep.)

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(Presented at the meeting of April 7, 1927)

*Podalonia violaceipennis* is a common, slender red and black Sphecid wasp that stores caterpillars in short burrows. It is widespread in California, occurring from the Pacific to high up in the Sierra Nevada mountains. In July, 1925, this insect was observed in the Sierras nesting at the base of a huge pine tree at an altitude of 6,500 feet. It captures and paralyzes by stinging, rather short-haired, inch-long processionary caterpillars (*Malacosoma* sp.) that make web nests on *Ceanothus* bushes. Each caterpillar is placed in a short steep burrow, a slender egg affixed to the side of the abdomen, and the burrow stoppered up with soil. One wasp may make quite a number of nest-holes close together, and in a small area at the base of a pine tree, 11 parasitized processionary caterpillars were disinterred. On July 30, 1925, I secured 4 freshly spun cocoons in this locality, said cocoons being dark brown with a nipple like extension from the base. These cocoons were kept in the warm laboratory in Honolulu. None hatching that summer, one was cut open on October 12, 1926, when it was found still alive as a quiescent, rather shrunken larva. Ultimately it perished of exposure. On December 22, 1926, the remaining cocoons were placed in a small refrigerator where though the temperature varied, it averaged perhaps 55° F. On January 31, 1927, the cocoons were taken out and placed in the warm laboratory. On February 25, of the same year, I heard a squeaky buzz that announced the hatching of a male *Podalonia*, the insect cutting, nearly through, a circular lid at the top of the cocoon.

Thus the cocoon stage of this wasp under the Hawaiian conditions unusual to it, was within a few days of 19 months, and it appeared necessary to bring about some substitute for the California winter to enable *Podalonia* to complete its transformations.

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\* Formerly referred to as *Psammophila*.